

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in this divisional application.

--1. (Currently Amended) A battery charging/discharging apparatus for determining [[the]] a remaining capacity of a battery, comprising:

measuring means for measuring a standby time [[of]] during which the battery is in a standby mode;

correction value calculating means for calculating a correction value for the remaining capacity of the battery based on the standby time measured by said measuring means; and

correcting means for correcting a current present remaining capacity value of the battery based on the correction value calculated by said correction value calculating means.

--2. (Currently Amended) [[A]] The battery charging/discharging apparatus according to Claim 1, further comprising determining means for determining whether ~~or not~~ the standby time has reached a predetermined time,

wherein said correction value calculating means calculates the correction value for the remaining capacity of battery at a predetermined time interval based on [[the]] a result of said determining means.

--3. (Currently Amended) A battery charging/discharging method of a battery charging/discharging apparatus for determining [[the]] a remaining capacity of a battery, said battery charging/discharging method comprising the steps of:

measuring a standby time [[of]] during which the battery is in a standby mode;

calculating a correction value for the remaining capacity of the battery based on the standby time measured in the measuring step; and

correcting a current present remaining capacity value of the battery based on the correction value calculated in the calculating step.

--4-6. (Cancelled)

--7. (New) Apparatus for determining a remaining capacity of a battery, the apparatus comprising:

a cell voltage detector for detecting a cell voltage;  
a microcomputer for calculating a remaining battery capacity based on a detected cell voltage from the cell voltage detector;

a memory for storing the remaining battery capacity calculated by the microcomputer; and

a timer under control of the microcomputer for counting time,

wherein when the battery is in a standby mode the

microcomputer sets itself in a sleep mode and starts the timer and when the battery shifts from the standby mode to a charge/discharge mode the timer is stopped and an elapsed standby time is read out from the timer to the microcomputer, and wherein the microcomputer calculates a correction value based on the elapsed standby time read from the timer, wherein the remaining battery capacity is read out from the memory and used by the microcomputer along with the correction value to calculate an up-to-date remaining capacity value that is then stored in the memory.

--8. (New) A method employing a microcomputer for determining a remaining capacity of a battery, the method comprising the steps of:

first determining whether the battery has not been in a charge/discharge mode for a predetermined period of time;

start measuring a standby time and set the microcomputer in a sleep mode upon a determination in the step of first determining that the battery has not been in the charge/discharge mode;

second determining whether the battery is placed in the charge/discharge mode following the step of start measuring;

stop measuring the standby time and provide the measured standby time to the microcomputer upon a determination in the second determining step that the battery is placed in the

charge/discharge mode;

calculating a remaining capacity correction value using the measured standby time;

calculating an up-to-date remaining capacity value using the remaining capacity correction value and a previously calculated remaining capacity value read out from a memory of the microcomputer.